

## **REMARKS**

### ***Claims***

Claims 16 and 19-29 will be pending in the application upon entry of this Amendment with claims 16, 22, and 27 being in independent form. Claims 1-15, 17, and 18 have been canceled. Claims 16 and 19-21 have been amended to further clarify the invention. Claims 22-29 have been added. Reconsideration is respectfully requested.

### ***Allowable Subject Matter***

Applicant respectfully notes the Examiner's indication that dependent claims 4-6, 8, 13-15, and 18 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Applicant appreciates the Examiner's indication of allowable subject matter, and has rewritten dependent claim 18 as independent claim 27 to include all the limitations of the base claim and all intervening claims. Therefore, Applicant submits that independent claim 27 is in condition for allowance, as are dependent claims 28 and 29, which depend therefrom.

### ***Claim Objections***

According to the Examiner, dependent claims 9 and 19 will be objected to under 37 CFR §1.75 upon allowance of dependent claims 8 and 18. Applicant has canceled claims 8 and 9 and Applicant has amended claim 19 to distinguish claim 19 from new independent claim 27, which is based upon original dependent claim 18. There is full support in the specification and drawings as originally filed for the amendment to claim 19.

### ***Claims Rejections – 35 U.S.C. §103(a)***

Claims 1, 2, 3, 12, and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ewing et al. (U.S. Patent No. 6,565,160) in view of Ono et al. (U.S. Patent No. 6,327,930). Claims 7, 10, 11, 17, 20, and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ewing et al. in view of Ono et al. and in further view of Horsch et al. (U.S. Patent No. 6,866,294). Applicant respectfully traverses the

rejection to dependent claim 17 which has been incorporated into independent claim 16 by this Amendment to merely clarify the invention.

Independent claim 16 defines over the cited prior art, either alone or in combination. Claim 16 recites a vehicle comprising an operator space and a cross beam 16. A support bracket 18 pivotally supports a pedal arm 20 forward of the operator space for operational movement in an operating range between a forward brake applying position and a rearward release position. A crash control device 60 interacts between the cross beam 16 and the pedal arm 20. The crash control device 60 includes a spring member having resilient characteristics that interacts between the cross beam 16 and the pedal arm 20 in the event of rearward movement of the pedal arm 20 out of the operating range to limit movement of the pedal arm 20 toward the operator space. This reduces the likelihood of injury to an operator of the vehicle during a collision.

Ewing et al. discloses a pedal assembly for a vehicle comprising a support bracket 18 and a pedal arm 14 pivotally supported by the support bracket 18. Ewing et al. is concerned with reducing the amount of pressurized fluid in a brake system during a collision to reduce forces transferred to an operator of a vehicle. Ewing et al. is not at all concerned with providing a crash control device that interacts between the cross beam of the vehicle and the pedal arm, as required by independent claim 16.

Ono et al. discloses a pedal assembly for a vehicle comprising a support bracket 26 and a pedal arm 56 pivotally supported by the support bracket 26. Ono et al. further includes a rigid member 76 disposed between a cross beam 74 of the vehicle and the pedal arm 56. The rigid member 76 acts to prevent rearward movement of the pedal arm 56 into an operator space in the vehicle to reduce injury to an operator of the vehicle. In operation, the rigid member 76 is crushed by the pedal arm 56 in the event of a collision. Ono et al. does not disclose, teach, or suggest the use of a spring member having resilient characteristics for absorbing the impact of the pedal arm 56 as the pedal arm 56 moves rearward during the collision, as required by independent claim 16.

Horsch et al. discloses a knee support with deformation elements 14, 15, 16, 17 having a honeycomb structure to absorb the impact of an operator's knees during a collision. Horsch et al. does not disclose, teach, or suggest the use of a spring member having resilient characteristics for absorbing energy during a collision. Furthermore,

Horsch et al. does not disclose, teach, or suggest any mechanism for reducing injuries associated with a pedal arm that moves into an operator space during the collision. Nevertheless, the Examiner has applied the teachings of the deformation elements in Horsch et al. to the pedal assembly in Ono et al. to arrive at the present invention. Applicant respectfully submits that even if these references could be properly combined, they still do not teach each and every limitation required in independent claim 16. Thus, Applicant submits that the Examiner has failed to establish a *prima facie* case for obviousness.

Independent claim 16 requires *a spring member having resilient characteristics that interacts between the cross beam 16 and the pedal arm 20*. Neither the rigid member 76 disclosed in Ono et al., nor the deformation elements 14, 15, 16, 17 in Horsch et al. are *spring members*. Instead, both the rigid member 76 and the deformation elements 14, 15, 16, 17 are crushed or deformed in a known manner to absorb energy during a collision. Conversely, the *spring member* of independent claim 16 is not intended to merely crush or deform during a collision, but is instead designed with resilient characteristics that, in one embodiment, allow the spring member *to resiliently flex to absorb energy*. Thus, even if Ono et al. and Horsch et al. can be properly combined, they do not teach this feature of independent claim 16.

Applicant also submits that there is no teaching, suggestion, or motivation to combine Ono et al. and Horsch et al. as suggested by the Examiner. The deformation elements disclosed in Horsch et al. are not designed to interact between a pedal arm and a cross beam of a vehicle. To the contrary, they are designed to be mounted between two fixed points and absorb the impact of an operator's knees during a collision. To this end, Horsch et al. has added a honeycomb design structure to the deformation elements such that the deformation elements deform in a known manner when they are impacted by the knees of the operator. On the other hand, Ono et al. was tasked with developing a rigid member that could withstand the forces from a pedal arm moving rearwardly into an operator space during a collision. Thus, the design parameters for the deformation elements, which are specifically designed to be impacted by the operator's knees, and the design parameters for the rigid member, which is not designed to be impacted directly by an operator's body, but by a rearwardly moving pedal arm, are much different.

Therefore, one skilled in the art would not be motivated to substitute the rigid member of Ono et al. with the deformation elements of Horsch et al., since they are not designed for the same function. In fact, given the intentional ease with which the deformation elements are likely to be designed to be deformed during a collision to reduce injury to an operator's knees, the deformation elements would NOT likely be suitable for stopping a pedal arm moving rearwardly into the operator space during a collision. Thus, there is no teaching, suggestion, or motivation to combine Horsch et al. with Ono et al., as suggested by the Examiner. Therefore, the Examiner has failed to establish a *prima facie* case for obviousness.

For these reasons, Applicant respectfully submits that independent claim 16 is in condition for allowance. Applicant also submits that dependent claims 19-21 are in condition for allowance based on their own merits, and based on their dependency to independent claim 16 and the failure of the references to suggest claim 16. Applicant also submits that independent claim 22, and dependent claims 23-26, which depend therefrom, are in condition for allowance based on the arguments presented above with respect to independent claim 16. Independent claim 22 recites similar elements to independent claim 16, but instead recites a crash relief system, and not a vehicle, as in claim 16.

Applicant believes the application is now in condition for allowance, which allowance is respectfully solicited. Applicants believe that no additional fees are required. However, the Commissioner is authorized to charge our Deposit Account No. 08-2789 for any additional fees or credit the account for any overpayment.

**Respectfully submitted,**  
**HOWARD & HOWARD ATTORNEYS, P.C.**

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**Date**

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